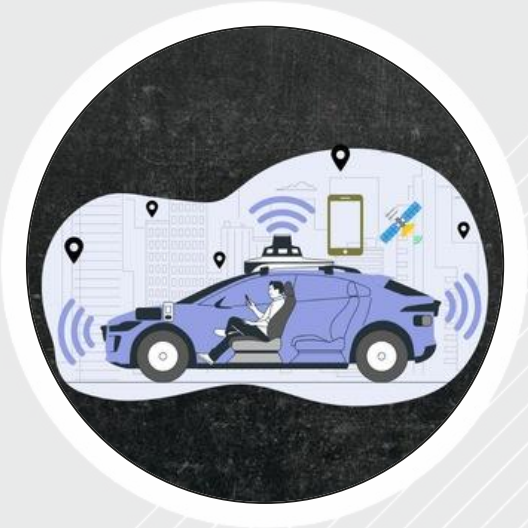
SPYWOLF

Security Audit Report



Completed on

November 2, 2023

OVERVIEW

This audit has been prepared for **VANETCHAIN** to review the main aspects of the project to help investors make make an informative decision during their research process.

You will find a a summarized review of the following key points:

- ✔ Contract's source code
- ✔ Owners' wallets
- ✔ Tokenomics
- ✔ Team transparency and goals
- ✔ Website's age, code, security and UX
- ✔ Whitepaper and roadmap
- ✔ Social media & online presence

The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal

- SPYWOLF Team -

TABLE OF CONTENTS

VANETCHAIN

PROJECT DESCRIPTION

According to their whitepaper:

VANETC is the token of VanetChain on BSC Network. VanetChain aims to make a custom and private blockchain to secure Vehicle Ad-hoc Networking. Vehicle Ad hoc networking is the main transmission medium for smart vehicle communication. Because of the security issues that can cause catastrophic results like accidents and human death, A secure implementation of VANET is crucial. To handle the security issues and make a safe network for vehicle communication we provide a blockchain based vehicle messaging framework.

Release Date: Presale starts in November, 2023

Category: Token/Staking

CONTRACT INFO

Token Name
Vanetchain

Symbol
VANETC

Contract Address
0x86Dd59bA14c3D3b3281E3152361D4d51a94BF36B

Network
Binance Smart Chain

Language
Solidity

Deployment Date
Nov 02, 2023

Contract Type
Token with staking

Total Supply
500,000,000

Status
Not launched

TAXES

Buy Tax
none

Sell Tax
none

*Taxes cannot be changed

Our Contract Review Process

The contract review process pays special attention to the following:

- Testing the smart contracts against both common and uncommon vulnerabilities
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

Blockchain security tools used:

- OpenZeppelin
- Mythril
- Solidity Compiler
- Hardhat

TOKEN TRANSFERS STATS

Transfer Count	1
Uniq Senders	1
Uniq Receivers	1
Total Amount	500000000 VANETC
Median Transfer Amount	500000000 VANETC
Average Transfer Amount	500000000 VANETC
First transfer date	2023-11-01
Last transfer date	2023-11-01
Days token transferred	1

SMART CONTRACT STATS

Calls Count	1
External calls	1
Internal calls	0
Transactions count	1
Uniq Callers	1
Days contract called	1
Last transaction time	2023-11-01 18:18:38 UTC
Created	2023-11-01 18:18:38 UTC
Create TX	0x76fce6e5817336c189b371558f22a2457eb1736affc823dfd27890b26ef7b106
Creator	0x2b5b77cab75e916e473008f24655b6f87d41fa72

VULNERABILITY CHECK

Design Logic	Passed
Compiler warnings.	Passed
Private user data leaks	Passed
Timestamp dependence	Passed
Integer overflow and underflow	Passed
Race conditions and reentrancy. Cross-function race conditions	Passed
Possible delays in data delivery	Passed
Oracle calls	Passed
Front running	Passed
DoS with Revert	Passed
DoS with block gas limit	Passed
Methods execution permissions	Passed
Economy model	Passed
Impact of the exchange rate on the logic	Passed
Malicious Event log	Passed
Scoping and declarations	Passed
Uninitialized storage pointers	Passed
Arithmetic accuracy	Passed
Cross-function race conditions	Passed
Safe Zeppelin module	Passed
Fallback function security	Passed

THREAT LEVELS

When performing smart contract audits, our specialists look for known vulnerabilities as well as logical and access control issues within the code. The exploitation of these issues by malicious actors may cause serious financial damage to projects that failed to get an audit in time. We categorize these vulnerabilities by the following levels:

High Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Medium Risk

Issues on this level are critical to the smart contract's performance/functionality and should be fixed before moving to a live environment.

Low Risk

Issues on this level are minor details and warning that can remain unfixed.

Informational

Information level is to offer suggestions for improvement of efficacy or security for features with a risk free factor.

FOUND THREATS

High Risk

No high risk-level threats found in this contract.

Low Risk

No low risk-level threats found in this contract.

FOUND THREATS

⚠ Medium Risk

Total staked amount is updated after user's deposit. Total staked amount + user's deposit can exceed current contract's balances and invalidate the initial check.

```
function stake(uint256 _amount, uint256 _duration) public {
  require(_amount*(10**18) < _balances[msg.sender], "Cannot stake more than you own");
  uint256 total_staked = returntotalStaked();
  require(total_staked*(10**18) *3 < _balances[address(this)], "Too much tokens staked, try after");
  _stake(_amount, _duration);
  _transfer(msg.sender,address(this),_amount*(10**18));
}

function _stake(uint256 _amount, uint256 _duration) internal {
  uint256 amount= _amount;
  require(stake_enabled==1,"Stake must be enabled");
  require(amount >= 100000 && amount<=2000000, "Cannot stake , change amount");
  require(_duration==15 || _duration==30,"Staking duration must be 15 days or 30 days" );

  uint256 index = stakes[msg.sender];
  uint256 timestamp = block.timestamp;

  if(index == 0){
    index = _addStakeholder(msg.sender);
  }

  if(stakeholders[index].address_stakes[duration_map[_duration]].amount > 0){
    revert(" Withdraw stake before new staking");
  }

    stakeholders[index].address_stakes[duration_map[_duration]]=Stake(msg.sender, amount, timestamp,0,_duration);
    totalStaked = totalStaked + amount;
    emit Staked(msg.sender, amount, index,timestamp,_duration);
}

function calculateStakeReward(Stake memory _current_stake,uint256 s_duration) internal view returns(uint256){

  uint256 annual_rate = 0;
  if(_current_stake.duration == 15){
    annual_rate = 12;

  } else {
  annual_rate=16;
  }

  if(_current_stake.amount == 0){
    return 0;
  }

  return (annual_rate *_current_stake.amount * s_duration)  / (100*365*24);

}
```

Recommendation:
Consider check against **totalStaked + _amount** instead of just totalStaked.

Informational

Users can stake their tokens for Annual Percentage Yield (APY) of 12% (for 15 days staking) and 16% (for 30 days staking).

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}
```

RECOMMENDATIONS FOR

GOOD PRACTICES

1. Consider fundamental tradeoffs
2. Be attentive to blockchain properties
3. Ensure careful rollouts
4. Keep contracts simple
5. Stay up to date and track development

VANETCHAIN

GOOD PRACTICES FOUND

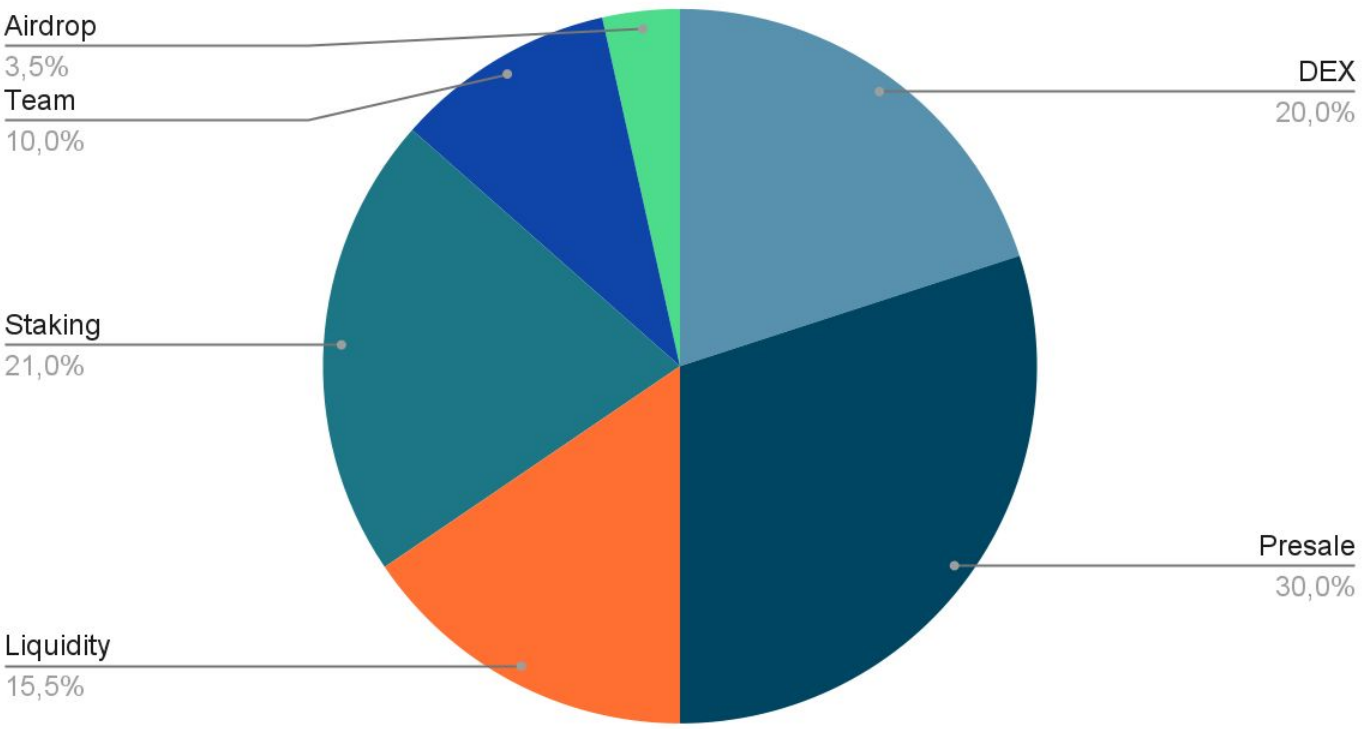
- ✔ The owner cannot mint new tokens after deployment
- ✔ The owner cannot stop or pause the contract
- ✔ The owner cannot set a transaction limit

TOKENOMICS

The following tokenomics are based on the project's whitepaper and/or website:

- 20% - DEX
- 30% - Presale
- 15.5% - Liquidity
- 21% - Staking
- 10% - Team
- 3.5% - Airdrop

Tokens distribution



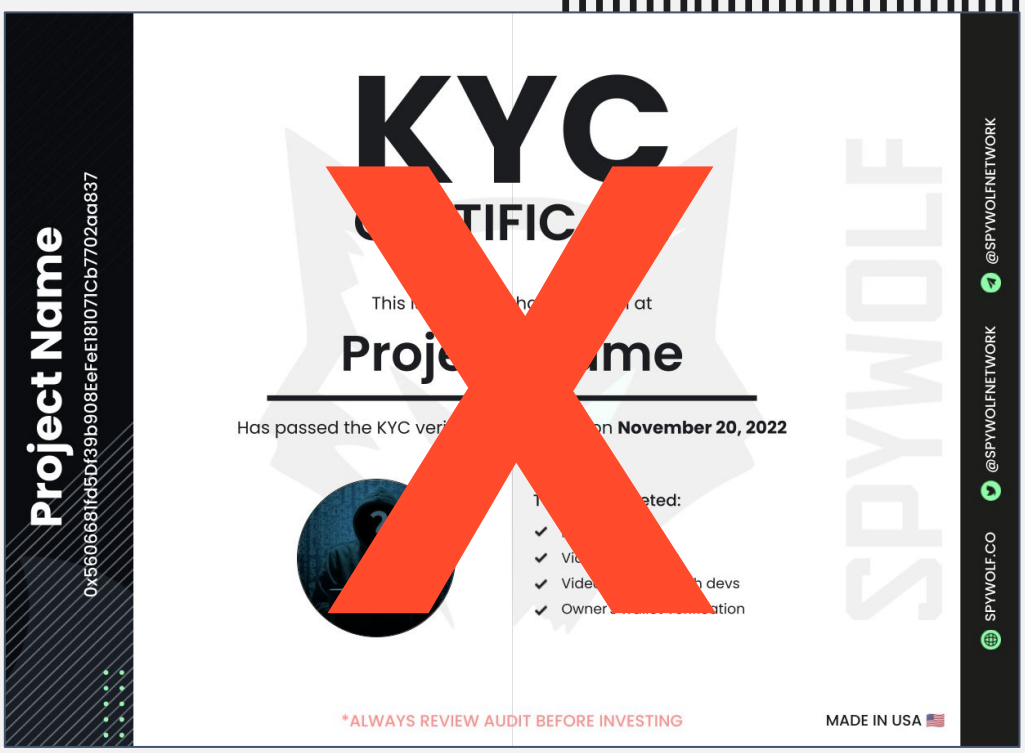
THE TEAM

⚠️ The team is annonymous

KYC INFORMATION

No KYC

We recommend the team to get a KYC in order to ensure trust and transparency within the community.



WEBSITE

Website URL
https://www.vanetchain.live

Domain Registry
https://www.namecheap.com/

Domain Expiration
2024-10-03

Technical SEO Test
Passed

Security Test
Passed. SSL certificate present

Design
Single page design with appropriate color scheme and graphics.

Content
The information helps new investors understand what the product does right away. No grammar mistakes found.

Whitepaper
No

Roadmap
Yes, goals set with time frames.

Mobile-friendly?
Yes

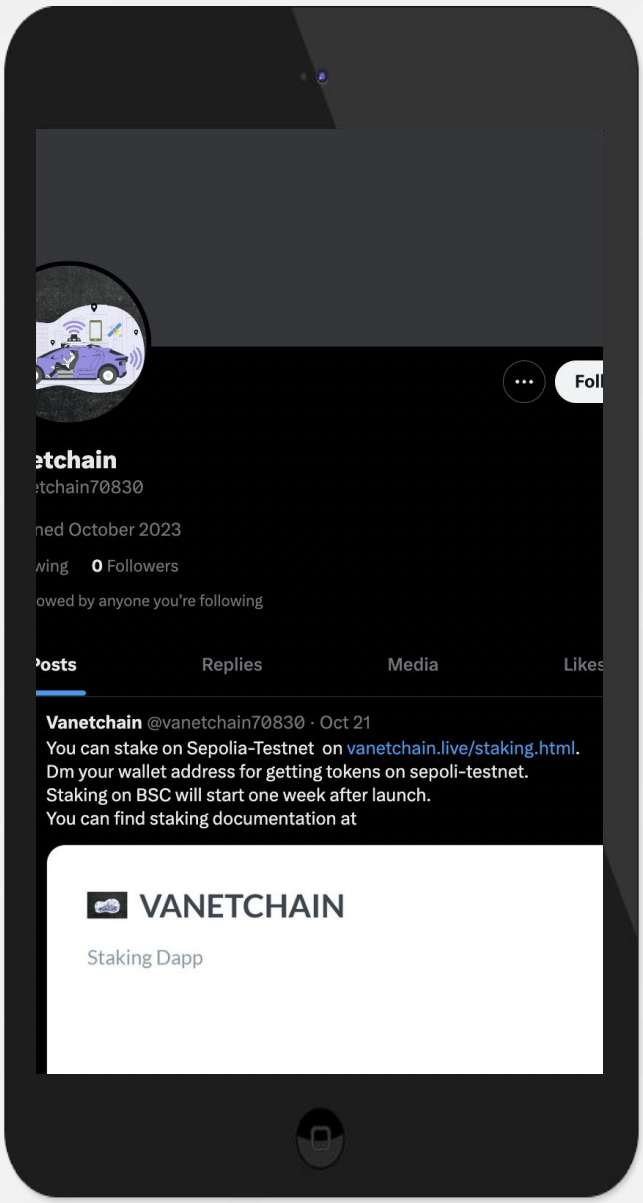
vanetchain.live

SOCIAL MEDIA

& ONLINE PRESENCE

ANALYSIS

Project's social media pages are new



Twitter

@vanetchain70830

- No followers
- New account

Discord

- Not available

Telegram

@vchain12

- 2 members
- New account

Medium

- Not available

SPYWOLF

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Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.
While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.